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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,167	04/02/2004	Noboru Asauchi	Q80853	7872

23373 7590 03/21/2006

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EXAMINER	
FIDLER, SHELBY LEE	
ART UNIT	**PAPER NUMBER**
2861	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/816,167	ASAUCHI, NOBORU	
	Examiner	Art Unit	
	Shelby Fidler	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-7 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-3 and 5-7 is/are rejected.

7)☒ Claim(s) 4 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 18 August 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 8/18/2004.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker (US 6676240 B2) in view of Tuttle (US 5914671).

Walker teaches the following:

***regarding claim 1**, an expendable container (*element 18*) storing an expendable (*ink, col. 4, lines 42-43*), comprising:

a memory circuit having a memory (*element 54*), an antenna being capable of establishing non-contact communication (*col. 5, lines 12-17*) with an external receiver transmitter (*element 42*), and a controller (*element 66*) controlling the non-contact communication and an access to the memory (*col. 5, lines 18-20*),

wherein the memory circuit has an ID information confirmation mode (*mode of normal operation*), the ID information mode being for the receiver transmitter to communicate with the memory circuit in order to confirm ID information of the expendable container (*col. 5, lines 1-7*)

Walker does not expressly teach the following:

***regarding claim 1**, the memory circuit has a low power consumption mode, the low power consumption mode being for lessening functions of the controller,

wherein the memory circuit is capable of shifting to the low power consumption mode in response to a completion of confirmation of the ID information of the expendable container

***regarding claim 2**, the low power consumption mode is a disable mode for deactivating the controller's function

Tuttle teaches the following:

***regarding claim 1**, a low power consumption mode (*sleep mode, col. 6, lines 55-59*), the low power consumption mode being for lessening functions of the controller (*as per the definition of "sleep mode"*), wherein the memory circuit is capable of shifting to the low power consumption mode in response to a completion of confirmation of the ID information of the expendable container (*col. 6, lines 55-60 with col. 9, lines 53-65*)

***regarding claim 2**, the low power consumption mode is a disable mode (*sleep mode*) for deactivating the controller's function (*as per the definition of "sleep mode"*)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Walker's memory circuit to include a low power consumption mode. The motivation for doing so, as taught by Tuttle, is to conserve energy and extend battery life (*col. 6, lines 55-57*)

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker (US 6676240 B2) in view of Tuttle (US 5914671), as applied to claim 2 above, and further in view of Patterson et al. (US 6356197 B1).

Walker teaches the following:

***regarding claim 3**, power is generated by an electromagnetic induction (*col. 7, lines 31-35*)

Tuttle teaches the following:

***regarding claim 3**, the reset signal generator (*wake-up timer, col. 6, lines 59-60*) is configured to stop the controller in response to the completion of confirmation of the ID information of the expendable container (*col. 6, lines 55-60 with col. 9, lines 53-65*)

Walker does not expressly teach the following:

***regarding claim 3**, a reset signal generator configured to control activation and deactivation of the controller, in response to a voltage level

Patterson et al. teaches the following:

***regarding claim 3**, a reset signal generator (*power rectifier*) configured to control activation and deactivation of the controller, in response to a voltage level (*col. 3, lines 61-63*)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Walker's memory circuit to include a low power consumption mode. The motivation for doing so, as taught by Tuttle, is to conserve energy and extend battery life (*col. 6, lines 55-57*)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Walker's memory circuit to activate and deactivate the controller in response to a voltage level. The motivation for doing so, is to ensure that the memory circuit is inducing the energy required to properly function.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker (US 6676240 B2) in view of Tuttle (US 5914671), as applied to claim 1 above, and further in view of Marneweck et al. (US 2002/0175806 A1).

Walker as modified by Tuttle teaches all claimed limitations except for the following:

***regarding claim 5**, the memory circuit is configured to receive a preset command sent from the external receiver transmitter to the expendable container in response to the completion of confirmation of the ID information of the expendable container, and shift to the low power consumption mode in response to the reception of the preset command

Marneweck et al. teaches the following:

***regarding claim 5**, the memory circuit (*tag circuit of Figure 2*) is configured to receive a preset command (*identification confirmation signal)* sent from the external receiver transmitter *(reader 11, paragraph 42, lines 39-42*) to the expendable container (*objects 15, paragraph 34, lines 1-5*) in response to the completion of confirmation of the ID information of the expendable container (*paragraph 42, lines 39-42*), and shift to the low power consumption mode in response to the reception of the preset command (*paragraph 42, lines 44-48 with flowchart of Figure 6 shows that upon stopping the algorithm, the reader must again wake-up each tag, inherently showing that the tags revert to sleep mode*)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Walker's receiver transmitter to send a low power consumption mode command in response to completion of ID confirmation. The motivation for doing so, as taught by Marneweck et al., is to properly identify tags when multiple tags are in the receiver transmitter's field (*paragraph 13, lines 1-3*).

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosugi (US 6585345 B2) in view of Marneweck et al. (US 2002/0175806 A1).

Kosugi teaches the following:

***regarding claim 6**, a device capable of loading an expendable container that stores an expendable, the device comprising:

an expendable container loader (*carriage 12, Fig. 7*) capable of loading each of a plurality of expendable containers (*cartridges 31-34, Fig. 7*) storing expendables at each of a plurality of predetermined locations (*locations corresponding to cartridges 31-34, Fig. 7*);

a receiver transmitter (*transmitter-receiver 45, Fig. 7*) capable of establishing a non-contact communication with the plurality of expendable containers (*Fig. 6B*); and

a moving mechanism configured to move the expendable container loader (*col. 8, lines 3-9*), in order to allocate the receiver transmitter at a predetermined proximity position relative to each of the plurality of expendable containers (*col. 11, lines 47-50*),

wherein the expendable container comprises a memory circuit (*IC 41, Fig. 6A/B*) having a memory (*memory cell 417, Fig. 6B*), an antenna (*antenna 36, Fig. 6B*) being capable of establishing non-contact communication with an external receiver transmitter (*transmitter-receiver 45*) at the proximity position (*col. 11, lines 47-50*), and a controller (*CPU 50, Fig. 3*) controlling the non-contact communication and an access to the memory (*col. 8, lines 62-67*),

wherein the memory circuit has an ID information confirmation mode (*the mode of normal operation*), the ID information confirmation mode being for the receiver transmitter to communicate with the memory circuit in order to confirm ID information of the expendable container (*col. 6, lines 14-24*),

wherein the device is configured to confirm the ID informations of the plurality of expendable containers corresponding to the predetermined plurality of locations, at which the plurality of expendable containers are loaded (*col. 11, lines 39-42*), based on relative positions of

the plurality of expendable containers to the receiver transmitter and the confirmed ID information of the multiple expendable containers (*col. 12, lines 23-31*)

Kosugi does not expressly teach the following:

***regarding claim 6**, a low power consumption mode (*sleep mode, col. 6, lines 55-59*), the low power consumption mode being for lessening functions of the controller (*as per the definition of "sleep mode"*), the memory circuit being capable of shifting to the low power consumption mode in response to a completion of confirmation of the ID information of the expendable container

***regarding claim 7**, the receiver transmitter is capable of sending a command to the expendable container to shift the memory circuit to the low power consumption mode, in response to the completion of confirmation of ID information of the expendable container

Marneweck et al. teaches the following:

***regarding claim 6**, a low power consumption mode, the low power consumption mode being for lessening functions of the controller (), the memory circuit being capable of shifting to the low power consumption mode in response to a completion of confirmation of the ID information of the expendable container (*col. 6, lines 55-60 with col. 9, lines 53-65*)

***regarding claim 7**, the receiver transmitter (*reader 11, paragraph 44, lines 5-7*) is capable of sending a command to the expendable container (*tag 16, paragraph 44, line 3*) to shift the memory circuit to the low power consumption mode (*sleep mode, block 36 of flowchart in Figure 7*), in response to the completion of confirmation of ID information of the expendable container (*paragraph 19, lines 12-16*)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Kosugi's memory circuit to include a low power consumption mode. The motivation for doing so, as taught by Tuttle, is to conserve energy (*col. 6, lines 55-57*).

Allowable Subject Matter

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The primary reason for the indication of allowable subject matter of claim 4 is the inclusion of the limitation of an expendable container including a resonance circuit that has a resonance frequency changing module to change a resonance frequency in response to the completion of confirmation of the ID information of the expendable container. It is this limitation found in the claims, as it is claimed in the combination, that has not been found, taught, or suggested by the prior art of record which indicates allowable subject matter.

Communication with the USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelby Fidler whose telephone number is (571) 272-8455. The examiner can normally be reached on MWF 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SLF

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K. FEGGINS
PRIMARY EXAMINER